**POLLUTION**

**LESSON PLAN**

**Grade: First Grade/Kindergarten**

**Date:**

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| Standards – RI4.3, 4.5, 4.7, 4.9, PE Key Idea 2.1c |
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| **Lesson Objective:** I can identify what are things that pollute our water.   * SWBAT understand that water changes state as it moves through the water cycle * SWBAT discuss and describe the process of the water cycle * SWBAT depict and clearly describe the stages of the water cycle in a creative format   SWBAT communicate his/her knowledge of the water cycle to class |
| **Materials:** Word Web |
| **Introduce vocabulary (5 Min)**   * 1. **Pollution:** the presence in or introduction into the environment of a substance or thing that has harmful or poisonous effects.   2. **Dirty:** filthy, foul, nasty, squalid mean conspicuously unclean or impure   3. **Conserve:** protect (something, especially an environmentally or culturally important place or thing) from harm or destruction |
| **Mini Lesson 10 mins**  Ask students what are things that make our water dirty?  **Read:**  *A Cool Drink of Water* by National Geographic Barbara Kerley.  Afterwards *- Use a Word web to Brainstorm and write ideas on smart board*  *Write pollutants in the center of the word web ask students what they think are things that can make water dirty? fill in the word web with thier answers.*  Discuss with students what conservation means and why we should conserve our water.  We all use water in many ways that include drinking, bathing, washing and watering our lawns, but water is a limited resource. That is why it is important that we all find ways to conserve water every day in every way. Kids play an important role in making sure that every drop counts and there are things you can do to help your family save water. If everyone saves a little we can save a lot.  Students will write a list of “What things make water dirty (pollutants)?” -- the brainstorm from earlier (look back to board as a reminder). They may add any other additional things they learned from the activity.  **Dirty Water Activity**  Prelude for activity: Safety Talk   * One at a time * No splashing * Wash hands afterwards * Don’t eat marshmallows * Hands to yourself (until activity begins)   **Materials needed:**   * 2 tubs * 1 bucket * Strainer * Tongs * Cups   Pollution materials:   * Coffee grounds * Oil * Grass/leaves * Tea bags * Banana peel * Plastic/zip lock * Paper * Marshmallows * Clorox wipes * Prepare tubs and “pollutants” on back table before lesson * Split class into groups (6-7 students each) * Have students gather around the back table * Each group has one tub, one set of the pollutants, and different ways to “filter” the water * Each student chooses a pollutant and puts it in the tub of water * While students are adding pollutants, ask them questions about the pollutants. * Have you seen these things before? Are they changing the water? (i.e. color, texture, etc.) How are the pollutants changing the water? * After pollutants have been added, students attempt to make the water as clean as it was before the pollutants were added. Note how students are trying to clean the water. * Is it as easy to clean the water, as it was to pollute it? Why or why not? * Discussion: Is the water clean? Why isn’t it? What did you learn from this activity?   **Universal Design for Learning:**   * **1.3 Offer alternatives for visual information**   **Assessment #1**: Turn and Talk  Have students pair up with peers and discuss what is pollution and why it is important for people to conserve water. |
| **Assessment #2:**  Tell student that they will write complete sentences of what can make our water dirty.  They must use the words from the word web created earlier.  **Differentiation:**   * Allow oral responses   **RUBRIC**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **4 Expert** | **3 Practitioner** | **2 Apprentice** | **1 Novice** | **0** | | I correctly wrote **3-4** sentences.  I started **all** of my sentences with a capital and ended with punctuation. | I correctly wrote **2-3** sentences.  I started **most** of my sentences with a capital and ended with punctuation. | I correctly wrote **1-2** sentences.  I started **some** of my sentences with a capital and ended with punctuation. | I correctly wrote **1** sentence'  I did not start my sentence with a capital or ended with punctuation. | I did nothing. |   **Danielson Standards for Teacher:**  **Component 3c: Engaging Students in Learning**    **Core Curriculum Standards for Students:**  **STANDARD 1—**Analysis, Inquiry, and Design Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.  **S1.1** Ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.  **S1.1a** Observe and discuss objects and events and record observations  **S1.1b** Articulate appropriate questions based on observations  **S1.2** Question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings |